

## CLAIMS

What is claimed is:

1. In a computer system, a method for redistributing workload among a plurality of processors, each processor of said plurality of processors being associated with a load value that indicates a level of workload assigned to said each processor, comprising:  
determining an average utilization level for said plurality of processors; and  
if a utilization level of one of said processors is above said average utilization level by more than a predefined threshold, incrementing, in a first scenario, said load value assigned to each of said plurality of processors, except processors whose utilization level is above said average utilization level by more than said predefined threshold and whose immediately preceding adjustment to its load value in a previous adjustment cycle was an increment.
2. The method of claim 1 wherein said incrementing in said first scenario is performed only if there exists a first processor among said plurality of processors whose utilization level, prior to said incrementing, is above said average utilization level by more than said predefined threshold and whose immediately preceding adjustment to a load value of said first processor in said previous adjustment cycle was an increment.
3. The method of claim 1 further comprising:  
if, in a second scenario alternative to said first scenario, said utilization level of said one of said processors exceeds said average utilization level by more than said predefined threshold, incrementing said load value assigned to each of said plurality of processors if an immediately preceding adjustment to a load value of a processor in said plurality of processors was a decrement.
4. The method of claim 3 wherein said incrementing in said second scenario is performed only if there exists a first processor among said plurality of processors whose utilization level, prior to said incrementing, is above said average utilization level by more than said predefined threshold and whose immediately preceding adjustment to a load value of said first processor in said previous adjustment cycle was an increment.
5. The method of claim 3 further comprising:

adjusting, in a third scenario alternative to both said first scenario and said second scenario, load values associated with selected processors of said plurality of processors, said selected processors including a first group of processors whose utilization level exceeds said average utilization level by more than said predefined threshold and a second group of processors whose utilization level is below said average utilization level by more than said predefined threshold, said adjusting including decrementing load values associated with said first group processors and incrementing load values associated with said second group of processors.

6. The method of claim 1 further including:

incrementing said load value associated with said each of said plurality of processors if a bundle value of any of said plurality of processors is below a minimum bundle value.

7. The method of claim 1 wherein said incrementing is accomplished by adding a predefined value to said load value associated with said each of said plurality of processors.

8. The method of claim 7 wherein a determination of whether said utilization level of said one of said processors is above said average utilization level by more than said predefined threshold employs a standard deviation calculation.

9. The method of claim 8 wherein said determination of whether said utilization level of said one of said processors is above said average utilization level by more than said predefined threshold is performed without taking into account low priority processes, said low priority processes representing processes whose priority level is below a pre-defined priority level.

10. The method of claim 1 wherein said workload is divided into a plurality of bundles, said load level associated with said each processor of said plurality of processors is expressed in bundle units.

11. The method of claim 10 wherein said each of said plurality of processors is assigned an initial bundle value at system startup.

12. The method of claim 1 wherein said plurality of processors are fewer in number than a total number of processors executing processes in said computer system.

13. The method of claim 1 wherein said workload is redistributed periodically throughout an execution lifetime of a given process.

14. An article of manufacture comprising a program storage medium having computer readable code embodied therein, said computer readable code being configured for redistributing workload among a plurality of processors in a computer system, each processor of said plurality of processors being associated with a load value that indicates a level of workload assigned to said each processor, comprising:

computer readable code for determining an average utilization level for said plurality of processors; and

computer readable code for incrementing in a first scenario, if a utilization level of one of said processors exceeds said average utilization level by more than a predefined threshold, said load value assigned to each of said plurality of processors, except processors whose utilization level exceeds said average utilization level by more than said predefined threshold and whose immediately preceding adjustment to its load value in a previous adjustment cycle was an increment.

15. The article of manufacture of claim 14 wherein said incrementing in said first scenario is performed only if there exists a first processor among said plurality of processors whose utilization level, prior to said incrementing, exceeds said average utilization level by more than said predefined threshold and whose immediately preceding adjustment to a load value of said first processor in said previous adjustment cycle was an increment.

16. The article of manufacture of claim 14 further comprising:

computer readable code for incrementing, in a second scenario alternative to said first scenario, if said utilization level of said one of said processors is below said average utilization level by more than said predefined threshold, said load value assigned to each of

said plurality of processors if an immediately preceding adjustment to a load value of a processor in said plurality of processors was a decrement.

17. The article of manufacture of claim 16 further comprising:

computer readable code for adjusting, in a third scenario alternative to both said first scenario and said second scenario, load values associated with selected processors of said plurality of processors, said selected processors consisting of a first group of processors whose utilization level exceeds said average utilization level by more than said predefined threshold and a second group of processors whose utilization level is below said average utilization level by more than said predefined threshold, said adjusting including decrementing load values associated with said first group processors and incrementing load values associated with said second group of processors.

18. The article of manufacture of claim 14 further including:

computer readable code for incrementing said load value associated with said each of said plurality of processors if a bundle value of any of said plurality of processors is below a minimum bundle value.

19. The article of manufacture of claim 14 wherein said incrementing is accomplished by adding a predefined value to said load value associated with said each of said plurality of processors.

20. The article of manufacture of claim 19 wherein a determination of whether said utilization level of said one of said processors is above said average utilization level by more than said predefined threshold employs a standard deviation calculation.

21. The article of manufacture of claim 20 wherein said determination of whether said utilization level of said one of said processors is above said average utilization level by more than said predefined threshold is performed without taking into account low priority processes, said low priority processes representing processes whose priority level is below a pre-defined priority level.

22. The article of manufacture of claim 14 wherein said workload is divided into a plurality of bundles, said load level associated with said each processor of said plurality of processors is expressed in bundle units.

23. The article of manufacture of claim 22 wherein said each of said plurality of processors is assigned an initial bundle value at system startup.

24. The article of manufacture of claim 14 wherein said plurality of processors are fewer in number than a total number of processors executing processes in said computer system.

25. The article of manufacture of claim 14 wherein said workload is redistributed periodically throughout an execution lifetime of a given process.